Edd Clark & Associates, Inc.
Environmental Consultants

March 7, 2006
Job No.: 0108,001.93

Mr. Bruce Raven
4550 Spring Hill Road
Petaluma, CA 94952

Groundwater Monitoring Report - November 2005 Event
C&R Ranches
4550 Spring Hill Road
Petaluma, California

Dear Mr. Raven:

Please accept this as Edd Clark & Associates, Inc.'s (EC&A's) report on November 2005 groundwater monitoring at C&R Ranches, 4550 Spring Hill Road (site) in Petaluma, California (Figure 1). Groundwater monitoring is being conducted at the site at the request of the County of Sonoma Department of Health Services (CSDHS) because of a release of fuel hydrocarbons (FHCs) to the subsurface in the location of the former underground storage tanks (USTs). Groundwater monitoring activities completed for this event were responsive to the CSDHS August 27, 2003 letter which approved removal of MW-1 and onsite water-supply wells W-1 and W-2 from the sampling program, annual sampling of MW-2 at seasonally high water-table levels, and semi-annual sampling of MW-3 through MW-10 at seasonally high and low water-table levels.

The scope of work for the November 2005 groundwater monitoring event included measuring depth to water (DTW) in MW-1 through MW-10 and collecting groundwater samples for laboratory analyses in monitoring wells MW-2 through MW-10 (Figure 2); calculating groundwater-flow direction and gradient; evaluating the results of the analyses and calculations; and preparing this report. Additionally, because an ozone microsparging system will be installed at the site, dissolved oxygen (DO) and oxidation-reduction potential (ORP) were measured in MW-2 through MW-10 and groundwater samples from MW-2 through MW-5 were analyzed for ORP-sensitive chemicals to establish pre-ozone microsparging baseline measurements. These ozone microsparging groundwater parameters were required by the CSDHS (November 30, 2005 letter). A copy of this report will be submitted to the CSDHS for their review.

Water-level Measurements
On November 22, 2005, EC&A personnel measured groundwater levels in monitoring wells MW-1 through MW-10. DTW below the top of well casing (TOC) in each well was measured to the nearest 0.01 foot (ft) with a water-level meter. The meter was cleaned and rinsed prior to taking measurements in each well. DTW measurements were recorded after the well caps were removed and groundwater in the wells was allowed to equilibrate for a minimum of 15 minutes. DTW in MW-1 through MW-10 ranged from 7.86 ft to 11.53 ft, and the calculated groundwater-flow

direction and gradient were S65°W and 0.096 ft/ft, respectively, in the vicinity of the former UST location (Table 1 and Figure 3).

Groundwater Field Logs containing DTW measurements are in Appendix A. DTW data will be electronically submitted to the State GeoTracker Internet Database.

Groundwater Sampling

On November 22, 2005, EC&A personnel collected groundwater samples from MW-2 through MW-10. Prior to collecting samples, the monitoring wells were purged with a submersible pump and the purged water was checked for the presence of free-floating product. Free-floating product was not detected in the purged water. Groundwater temperature, pH, electric conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO) were measured during purging of the wells at intervals of approximately one well-casing volume. Groundwater samples were collected from the monitoring wells after groundwater parameters stabilized and the water level returned to a minimum of 80% of the initially recorded water level. Purge volumes and water-quality parameters are recorded on the Groundwater Field Logs in Appendix A.

Groundwater samples were collected in new single-sample, disposable bailers fitted with disposable, bottom-emptying devices to minimize water degassing. The samples were transferred from the bailers to properly labeled, laboratory-supplied sterile sample containers, placed on ice and transported under chain-of-custody control to McCampbell Analytical, Inc. (MAI) for the required chemical analyses. MAI is a state-certified laboratory in Pacheco, California.

Decontamination Procedures

Sampling equipment was cleaned onsite with a low-phosphorous soap and water solution and double rinsed in tap water. Decontamination water and monitoring well purge water were placed in properly labeled, DOT 17H 55-gallon drums for temporary, onsite storage.

Groundwater Sample Analyses and Results

Groundwater samples collected from MW-3 through MW-10 were analyzed for total petroleum hydrocarbons (TPH) as gasoline (g), TPH as diesel (d) and benzene, toluene, ethylbenzene and xylenes (BTEX) by Analytical Methods SW8015Cm/8015C/8021B, and for methyl tert-butyl ether (MTBE), other gasoline oxygenates and the lead scavengers 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCA) by Analytical Method SW8260B. Groundwater samples from MW-2 through MW-5 were analyzed for the inorganic anions bromide and bromate by Method E300.1, hexachrome by Method E218.6, and molybdenum, selenium and vanadium by Method E200.8.

TPHg was detected in groundwater samples collected from MW-3 and MW-4 at 3700 micrograms per liter (µg/l) and 12,000 µg/l, respectively. TPHd was also detected in samples from MW-3 and MW-4 at 350 µg/l and 860 µg/l, respectively. MAI characterized the TPHd results from these wells as "gasoline range compounds are significant". Benzene was detected in MW-3, MW-4, MW-6 and MW-10 at 450 µg/l, 3100 µg/l, 1.7 µg/l and 6.2 µg/l, respectively. Toluene, ethylbenzene and/or

xylenes were detected in groundwater samples collected from MW-3, MW-4 and MW-10 at concentrations ranging from 1.6 µg/l ethylbenzene (MW-10) to 1300 µg/l xylenes (MW-4).

MTBE was detected in samples from MW-3, MW-4, MW-5, MW-7, MW-8 and MW-9 at 23 µg/l, 71 µg/l, 30 µg/l, 0.97 µg/l, 3.2 µg/l and 0.65 µg/l, respectively. T-butyl alcohol (TBA) was detected in MW-3, MW-5 and MW-8 at 13 µg/l, 35 µg/l and 8.4 µg/l, respectively. 1,2-DCA was detected in MW-3, MW-4 and MW-5 at 11 µg/l, 85 µg/l and 13 µg/l, respectively.

Bromide was detected in groundwater samples collected from MW-3, MW-4 and MW-5 at 0.25 milligrams per liter (mg/l), 0.52 mg/l and 0.35 mg/l, respectively. Hexachrome was detected in MW-2 at 0.43 µg/l. Molybdenum was detected in samples from MW-3, MW-4 and MW-5 at 5.1 µg/l, 4.7 µg/l and 0.72 µg/l, respectively. Vanadium was detected in MW-3 at 1.9 µg/l.

The results of analyses of groundwater samples from monitoring wells are presented in Tables 2 and 3. Results of samples previously collected from the water-supply wells are presented in Table 4. A complete copy of the analytical laboratory report is in Appendix B. Groundwater sample results will be electronically submitted to the State GeoTracker Internet Database.

DO And ORP Measurements

On November 22, 2005, EC&A personnel measured DO and ORP in MW-2 through MW-10. DO, ORP and groundwater temperature measurements are presented in Table 5.

Discussion

In MW-1, except for low concentrations of TPHg, benzene, ethylbenzene and xylenes detected in January 2001, FHCs were not detected in the other eight sampling events conducted since February 1996. MW-1 was removed from the monitoring program after the June 2003 sampling event.

In MW-2, which is located immediately north of the former UST excavation, MTBE at minor concentrations is the only analyte that has been detected; the maximum concentration detected is 3.6 µg/l (September 2002). MTBE has been detected in four of the ten sampling events conducted on this well at a maximum concentration of 3.6 µg/l.

In MW-3, concentrations of TPHg have ranged from 310 µg/l (October 2004) to 19,000 µg/l (April 2000); TPHd concentrations have ranged from non-detect (ND) <50 µg/l (January 2000) to 1200 µg/l (July 2000 and April 2004); benzene concentrations have ranged from 19 µg/l (October 2004) to 3700 µg/l (April 2004); and MTBE concentrations have ranged from 18 µg/l (April 2005) to 230 µg/l (October 2000). TBA was detected in MW-3 for the April and November 2005 events at 50 µg/l and 13 µg/l, respectively. The lead scavengers EDB has been detected in MW-3 for all but two sampling events at concentrations ranging from 1.2 µg/l (January 2001) to 46 µg/l (July 2000). 1,2-DCA has been detected in MW-3 for each sample event at concentrations ranging from 2.8 µg/l to 220 µg/l (October 2000). FHC concentrations in groundwater from MW-3 fluctuate between monitoring events. Between the April and November 2005 monitoring events, concentrations of TPHg, TPHd, xylenes and MTBE increased; all other analytes decreased.

In MW-4, concentrations of TPHg have ranged from 10,000 µg/l (January 2000) to 38,000 µg/l (April 2004); TPHd concentrations have ranged from 750 µg/l (January 2000) to 7100 µg/l (April 2004); benzene concentrations have ranged from 1600 µg/l (January 2000 and October 2004) to 4300 µg/l (April 2005); and MTBE concentrations have ranged from 38 µg/l (January 2001) to 620 µg/l (April 2004). TAME has occasionally been detected in MW-4 and TBA has been detected in most sampling events. In November 2005, TAME was ND<10 µg/l and TBA was ND<100 µg/l. EDB has not been detected for any sampling event, and 1,2-DCA has been detected for each sampling event at concentrations ranging from 20 µg/l (May 2002) to 210 µg/l (January and July 2000). Concentrations of all detected analytes but 1,2-DCA decreased significantly between the April and November 2005 monitoring events.

In MW-5, concentrations of TPHg, TPHd and benzene have ranged from below their respective detection limits to 420 µg/l (May 2002), 330 µg/l (April 2004), 6.6 µg/l (June 2003), respectively (Table 2). MTBE has been detected in each event at concentrations ranging from 6.7 µg/l (June 2003) to 110 µg/l (September 2003). TBA has been detected in MW-5 in all but one event at a maximum concentration of 57 µg/l (September 2002), and the lead scavenger 1,2-DCA has been detected in each event at a maximum concentration of 46 µg/l (September 2003).

In MW-6, no analytes have been detected above their respective reporting limits except for two minor detections of benzene (October 2004 and November 2005) and a one-time minor detection of toluene, ethylbenzene and xylenes (October 2004).

In MW-7, TPHg, TPHd, benzene, ethylbenzene, TAME and EDB have never been detected. MTBE has been detected in each sample collected from MW-7 at concentrations ranging from 0.62 µg/l (September 2003) to 6.6 µg/l (October 2004). Toluene, xylenes and TBA were detected once in October 2004. 1,2-DCA has been detected twice, in June 2003 and April 2004.

In MW-8, MTBE has been detected for each but one event (April 2005) at concentrations ranging from 1.2 µg/l (April 2004) to 3.3 µg/l (June 2003). TBA has been detected three times at concentrations ranging from 6.0 µg/l (October 2004) to 8.4 µg/l (November 2005).

In MW-9, only MTBE has been detected. Concentrations of MTBE, ranging from 0.65 µg/l (November 2005) to 1.2 µg/l (September 2003), have been detected in all but the October 2004 sampling events.

In MW-10, all analytes have been below their respective reporting limits for all events except for April 2005. For the April 2005 event, TPHd was detected for the first time at 200 µg/l. For the November 2005 event, TPHd was ND; however, BTEX, at low concentrations, was detected for the first time.

Conclusions

The groundwater-flow direction has been consistently to the southwest. The plume of FHC-impacted groundwater is constrained for all FHCs by ND values, except for MTBE (Figure 4), which

is the most widely distributed contaminant in groundwater beneath the site. However, the extent of the MTBE groundwater plume is close to down-gradient wells MW-7, MW-8 and MW-9, which were 0.97 µg/l, 3.2 µg/l and 0.65 µg/l, respectively, for the November 2005 sampling event. The NCRWQCB's Water Quality Objective for MTBE is 5.0 µg/l.

The greatest FHC concentrations continue to be detected in MW-3 and MW-4; elevated FHC concentrations have been detected in MW-5. Concentrations of FHCs, including oxygenates and lead scavengers, fluctuate in groundwater from MW-3, MW-4 and MW-5. FHC concentrations in these wells appear to be higher when the water table is high. Low to minor FHC concentrations have been detected in MW-1, MW-2, and MW-6 through MW-10.

A significant portion of the TPHd results detected in groundwater samples collected from the site monitoring wells are representative of gasoline range hydrocarbons as indicated by the analytical laboratory.

Recommendations

The current groundwater sampling program should be continued until the ozone microsparging system is installed and running, at which time the monitoring program will be revised. For complete details of the sampling program that will be implemented after the installation and startup of the ozone system, see EC&A's October 4, 2005 *Remedial Action Plan* and November 16, 2005 *Remedial Action Plan Addendum.*

Schedule

The next semi-annual sampling event is scheduled for May 2006. Water levels will be measured in all of the monitoring wells and groundwater samples will be collected from MW-2 through MW-10. Groundwater samples will be analyzed for TPHg, TPHd and BTEX by Analytical Methods SW8015Cm/8015C/8021B, and for MTBE, other gasoline oxygenates and the lead scavengers EDB and 1,2-DCA by Analytical Method SW8260B. In addition, dissolved oxygen (DO) and oxidation-reduction potential (ORP) will be measured in all of the wells, and groundwater samples from MW-2 through MW-5 will be analyzed for ORP-sensitive chemicals.

EC&A's October 4, 2005 Remedial Action Plan (RAP) and November 16, 2005 RAP Addendum for ozone microsparging were approved by the CSDHS in their November 30, 2005 letter. EC&A anticipates that the sparge wells will be installed by May 2006 and the ozone generator and associated plumbing will be installed and operational by July 2006.

Limitations

The conclusions presented in this report are professional opinions based on the information presented herein, which includes data generated by others. Whereas EC&A does not guarantee the accuracy of data supplied by third parties, we reserve the right to use this data in formulating our professional opinions. This report is intended only for the indicated purpose and project site. Conclusions and recommendations presented herein apply to site conditions existing at the time of our study. Changes in the conditions of the site property can occur with time because of natural

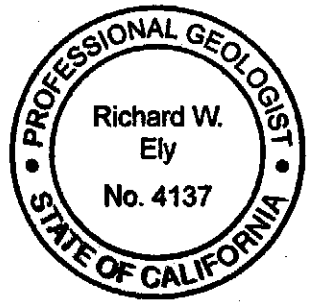
processes or the works of man on the site or adjacent properties. In addition, changes in applicable standards can also occur as the result of legislation or from the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

Thank you for allowing EC&A the opportunity to provide environmental services for you. Please call John Calomiris, project manager, if you have any questions.

Sincerely,

Etta Jon VandenBosch
Environmental Scientist

Richard Ely, PG #4137
Senior Geologist



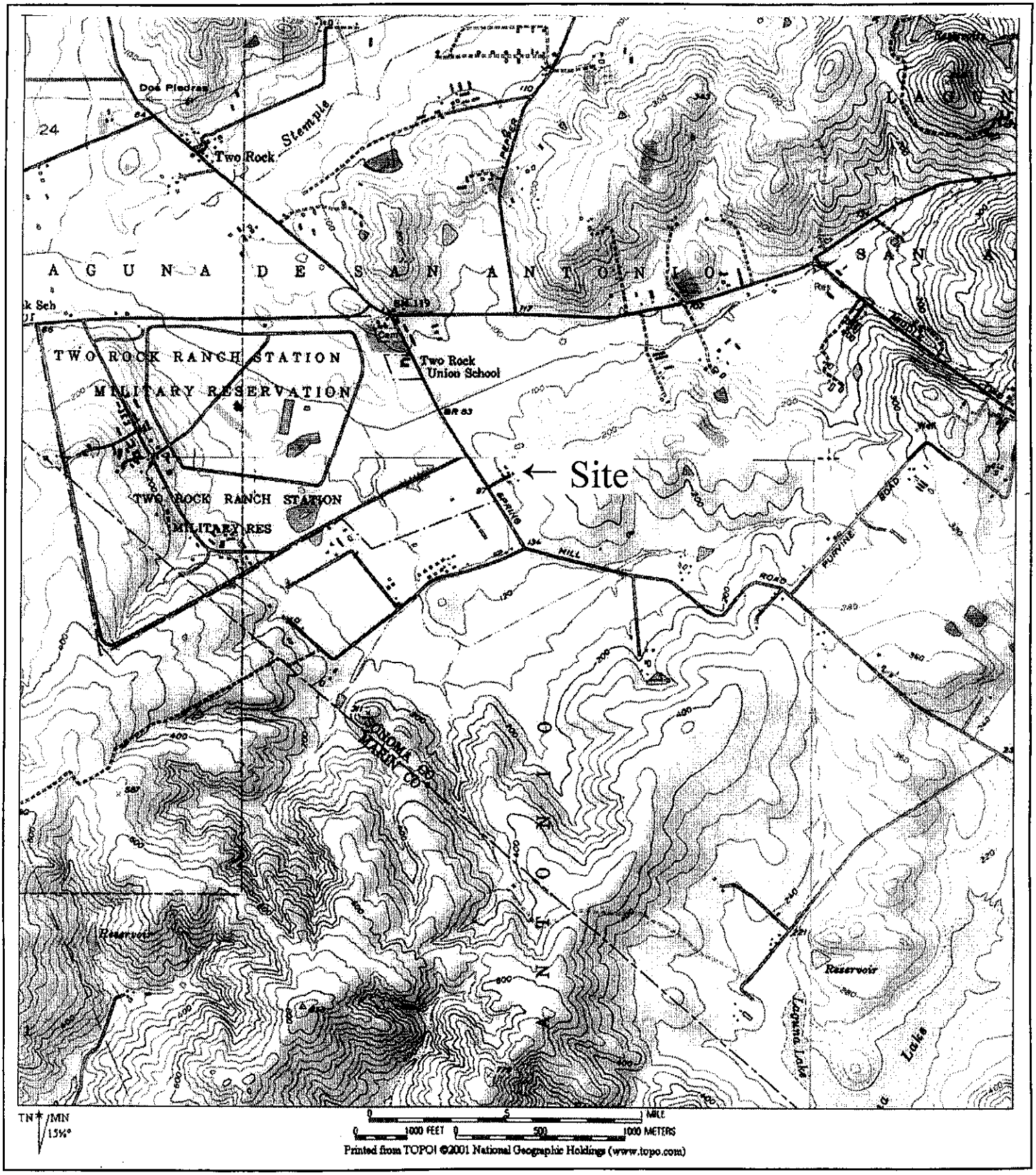
Attachments: Figure 1 - Site Location Map
Figure 2 - Site Plan
Figure 3 - Groundwater Elevation Map, 22 November 2005
Figure 4 - Isocontour Map of MTBE in Groundwater, 22 November 2005

Table 1 - Groundwater Elevation Data
Table 2 - Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers
Table 3 - Analytical Results - Groundwater Samples from Monitoring Wells: Inorganic Anions and Metals
Table 4 - Analytical Results - Groundwater Samples from Water-supply Wells
Table 5 - Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential and Temperature

Appendix A - Groundwater Field Logs
Appendix B - Analytical Laboratory Report

cc: Darcy M. Bering, County of Sonoma Department of Health Services

0108\QMR Nov05



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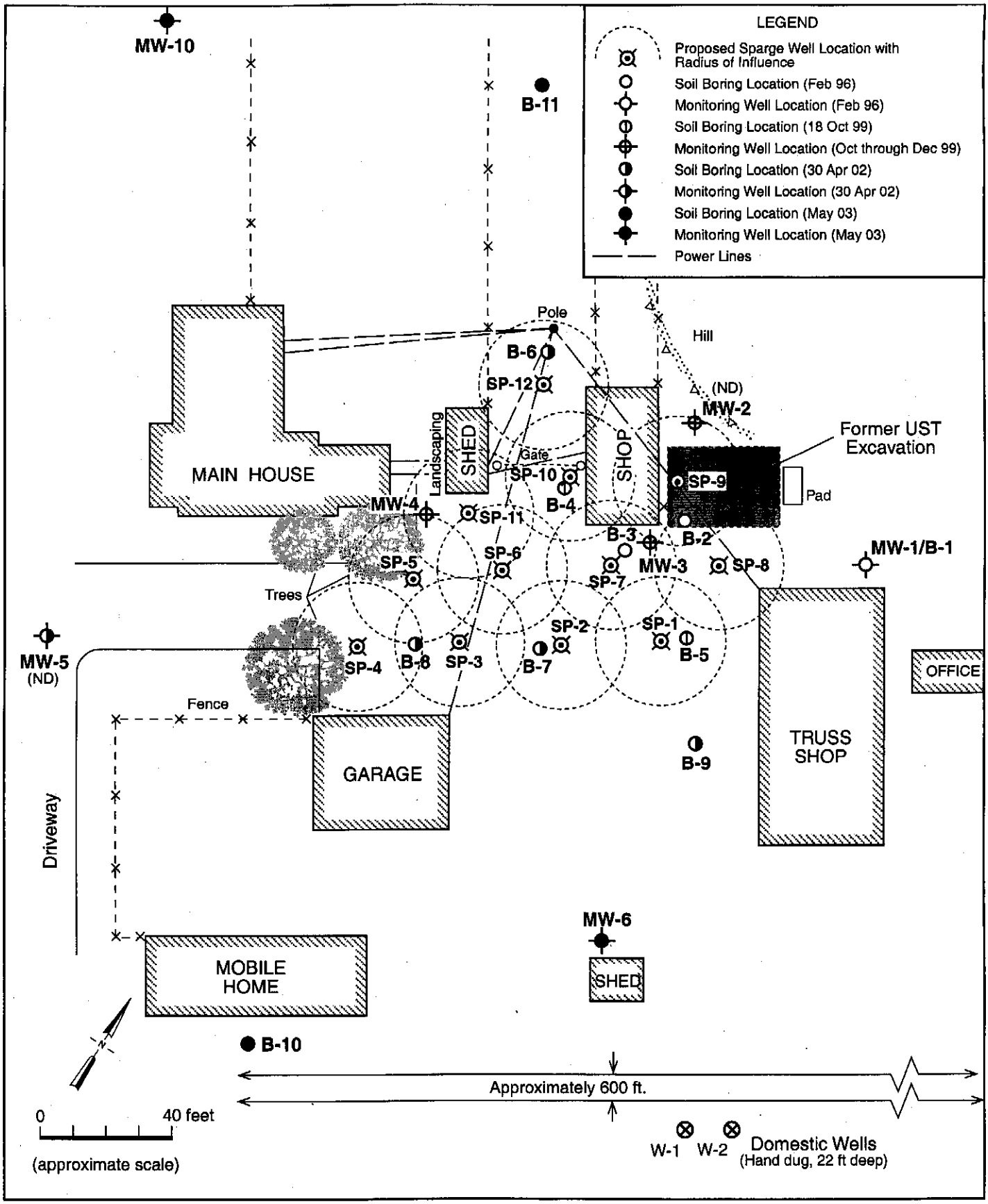
Site Location Map
C & R Ranches
4550 Spring Hill Road
Petaluma, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
0108,001.93	Leslye Choate	October 2004	



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SITE PLAN

C&R Ranches
4550 Spring Hill Road
Petaluma, California

FIGURE
2

JOB NUMBER	REVIEWED BY	DATE	REVISED	SHEET NO.
0108, 003.93	EC&A, Richard Ely	January 2000	July 2005	1 of 1

(TRACE #295/RG/12Jul05)

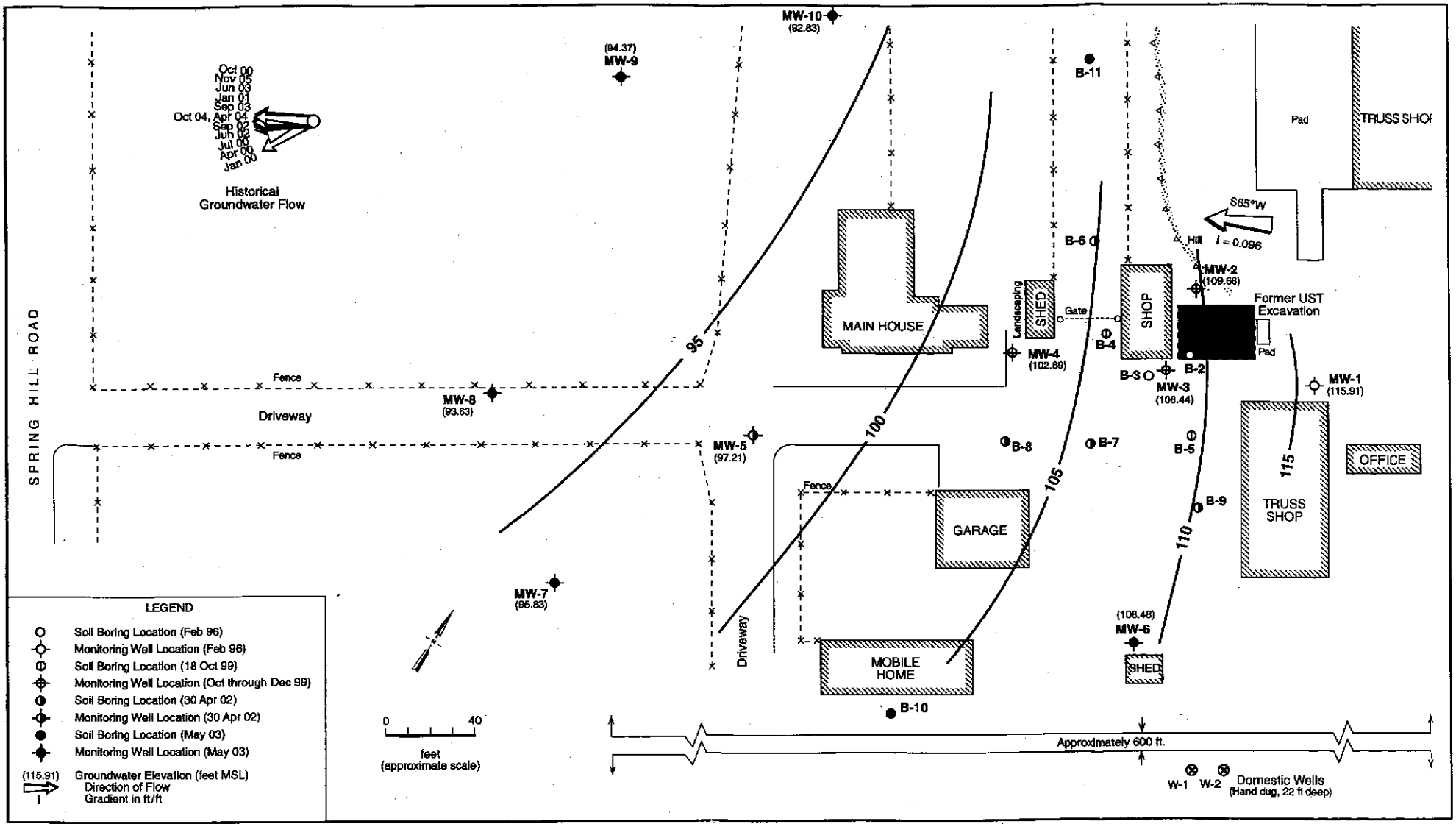

FIGURE 3
SHEET NO. 1 of 1

(TRACE #285/RIG/13F4006)

EDD CLARK & ASSOCIATES, INC.
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GROUNDWATER ELEVATION MAP,
22 November 2005
C&R Ranches
4550 Spring Hill Road
Petaluma, California

FIGURE 3

JOB NUMBER	REVIEWED BY	DATE	REVISED	SHEET NO.
0108, 003.93	EC&A, E.I. VandenBosch	January 2000	February 2006	1 of 1

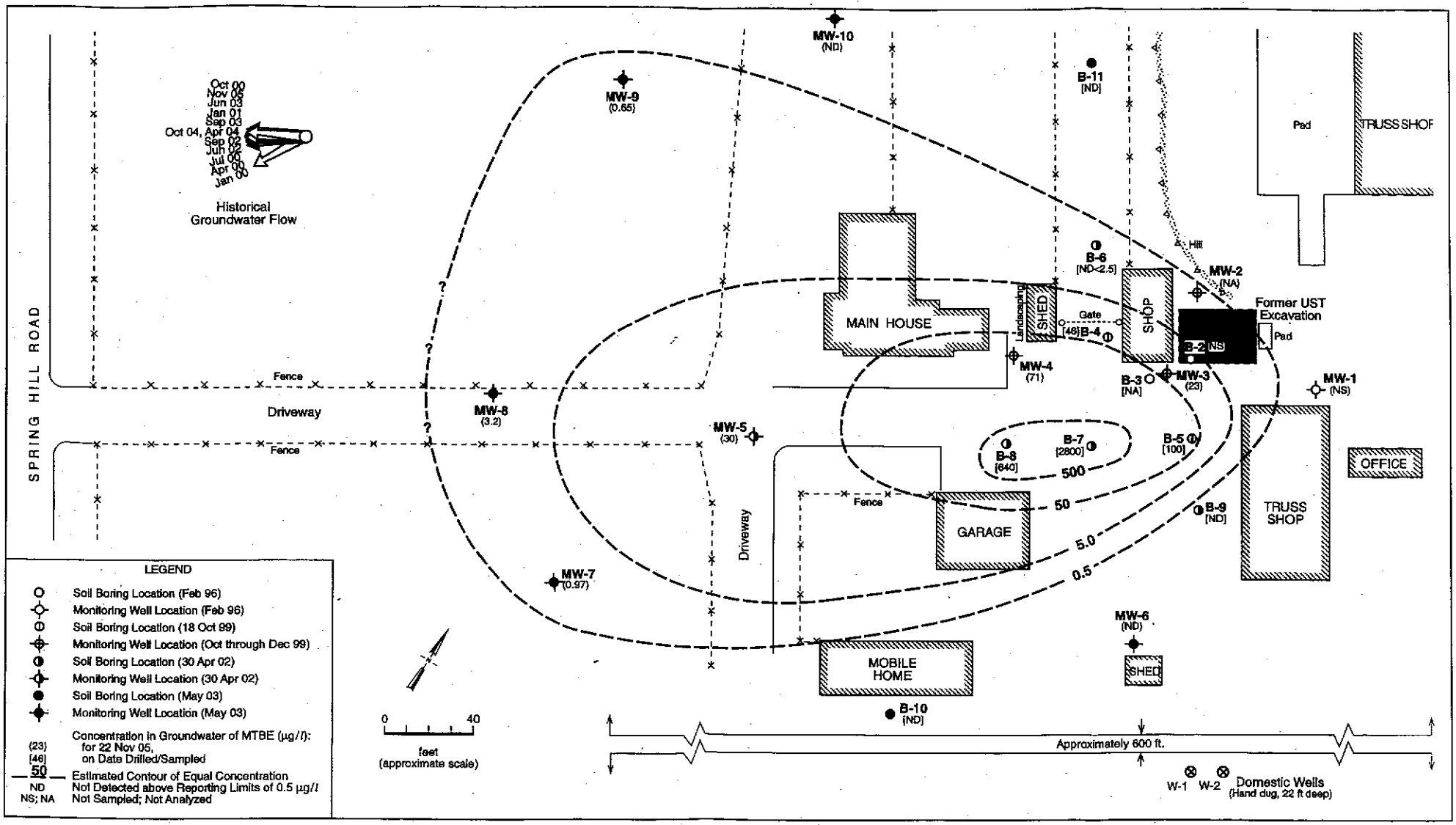

FIGURE 4
SHEET NO. 1 of 1

(TRACE #285/RO/1/4Feb06)

EDD CLARK & ASSOCIATES, INC.
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ISOCONTOUR MAP of MTBE in GROUNDWATER
22 November 2005
C&R Ranches
4550 Spring Hill Road
Petaluma, California

FIGURE 4

JOB NUMBER	REVIEWED BY	DATE	REVISED	SHEET NO.
0108, 003.93	EC&A, E.J. VandenBosch	January 2000	February 2006	1 of 1

Table 1. Groundwater Elevation Data
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	TOC Elevation feet msl	Date	Depth to Water feet	Groundwater Elevation feet msl
MW-1	120.00	01/21/00	5.21	114.79
MW-2	116.07		5.16	110.91
MW-3	115.13		6.95	108.18
MW-4	110.06		5.79	104.27
Gradient: S 43° W, 0.08 ft/ft				
MW-1	120.00	04/05/00	5.30	114.70
MW-2	116.07		4.35	111.72
MW-3	115.13		4.95	110.81
MW-4	110.06		5.50	104.56
Gradient: S 66° W, 0.10 ft/ft				
MW-1	120.00	07/12/00	6.65	113.35
MW-2	116.07		7.44	108.63
MW-3	115.13		7.71	107.42
MW-4	110.06		7.67	102.39
Gradient: S 70° W, 0.097 ft/ft				
MW-1	120.00	10/20/00	8.11	111.89
MW-2	116.07		10.13	105.94
MW-3	115.13		10.11	105.02
MW-4	110.06		10.74	99.32
Gradient: S 80° W, 0.10 ft/ft				
MW-1	120.00	01/22/01	6.81	113.19
MW-2	116.07		8.04	108.03
MW-3	115.13		8.22	106.91
MW-4	110.06		9.36	100.70
Gradient: S 74° W, 0.093 ft/ft				

Table 1. Groundwater Elevation Data
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	TOC Elevation feet msl	Date	Depth to Water feet	Groundwater Elevation feet msl
MW-1	123.85	05/09/02	6.72	117.13
MW-2	119.92		6.81	113.11
MW-3	118.98		7.07	111.91
MW-4	113.91		7.31	106.60
MW-5	108.04		6.39	101.65
Gradient: S 70° W, 0.075 ft/ft				
MW-1	123.85	09/23/02	9.88	113.97
MW-2	119.92		10.47	109.45
MW-3	118.98		10.45	108.53
MW-4	113.91		10.70	103.21
MW-5	108.04		11.91	96.13
Gradient: S 77° W, 0.080 ft/ft				
MW-1	123.77	06/04/03	5.83	117.94
MW-2	119.92		5.43	114.49
MW-3	118.90		5.76	113.14
MW-4	113.91		6.20	107.71
MW-5	108.04		5.72	102.32
MW-6	119.27		6.47	112.8
MW-7	105.79		6.80	98.99
MW-8	102.99		5.68	97.31
MW-9	104.93		6.26	98.67
MW-10	104.36		5.91	98.45
Gradient: S 61° W, 0.076 ft/ft				

Table 1. Groundwater Elevation Data
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	TOC Elevation feet msl	Date	Depth to Water feet	Groundwater Elevation feet msl
MW-1	123.77	09/11/03	8.84	114.93
MW-2	119.92		9.38	110.54
MW-3	118.90		9.31	109.59
MW-4	113.91		10.03	103.88
MW-5	108.04		10.09	97.95
MW-6	119.27		10.83	108.44
MW-7	105.79		9.37	96.42
MW-8	102.99		8.97	94.02
MW-9	104.93		9.89	95.04
MW-10	104.36		9.51	94.85
Gradient: S58° W, 0.086 ft/ft				
MW-1	123.77	04/29/04	6.56	117.21
MW-2	119.92		6.49	113.43
MW-3	118.90		6.78	112.12
MW-4	113.91		7.07	106.84
MW-5	108.04		6.15	101.89
MW-6	119.27		7.85	111.42
MW-7	105.79		7.05	98.74
MW-8	102.99		6.00	96.99
MW-9	104.93		6.57	98.36
MW-10	104.36		6.72	97.64
Gradient: S58° W, 0.078 ft/ft				

Table 1. Groundwater Elevation Data
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	TOC Elevation feet msl	Date	Depth to Water feet	Groundwater Elevation feet msl
MW-1	123.77	10/22/04	7.84	115.93
MW-2	119.92		11.79	108.13
MW-3	118.90		11.06	107.84
MW-4	113.91		11.22	102.69
MW-5	108.04		12.51	95.53
MW-6	119.27		12.94	106.33
MW-7	105.79		11.92	93.87
MW-8	102.99		11.05	91.94
MW-9	104.93		12.24	92.69
MW-10	104.36		12.94	91.42
Gradient: S58° W, 0.12 ft/ft				
MW-1	123.77	04/06/05	---	---
MW-2	119.92		2.37	117.55
MW-3	118.90		3.76	115.14
MW-4	113.91		3.37	110.54
MW-5	108.04		2.95	105.09
MW-6	119.27		4.30	114.97
MW-7	105.79		3.75	102.04
MW-8	102.99		1.80	101.19
MW-9	104.93		2.86	102.07
MW-10	104.36		2.03	102.33
Gradient: S58°W, 0.12 ft/ft				

Table 1. Groundwater Elevation Data
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	TOC Elevation feet msl	Date	Depth to Water feet	Groundwater Elevation feet msl
MW-1	123.77	11/22/05	7.86	115.91
MW-2	119.92		10.26	109.66
MW-3	118.90		10.46	108.44
MW-4	113.91		11.22	102.69
MW-5	108.04		10.83	97.21
MW-6	119.27		10.79	108.48
MW-7	105.79		9.96	95.83
MW-8	102.99		9.36	93.63
MW-9	104.93		10.56	94.37
MW-10	104.36		11.53	92.83
Gradient: S65°W, 0.096 ft/ft				

TOC: Top of casing
feet msl: Measured in feet relative to mean sea level

The TOC elevations for monitoring wells MW-1 through MW-4 were re-surveyed and MW-5 surveyed on June 19, 2002. An adjustment of 3.85 ft was made to the existing TOC elevations that were previously based on the proximity of the 120.0 ft contour as shown on the USGS Point Reyes quadrangle dated 1954. The vertical datum used for the June 2002 survey is a benchmark located on U.S. Coast Guard Training Center land. In June 2003, the TOC elevations for MW-1, MW-3 and MW-5 were re-surveyed and MW-6 through MW-10 were surveyed.

Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TAME µg/l	TBA µg/l	EDB µg/l	1,2-DCA µg/l
MW-1 †	02/15/96	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
	01/21/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND	ND	ND	ND
	04/05/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 *	NA	NA	NA	NA
	07/12/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 *	NA	NA	NA	NA
	10/20/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 *	NA	NA	NA	NA
	01/22/01	210 ª	ND<50	1.1	ND<0.5	11	37	ND<5.0 *	NA	NA	NA	NA
	05/09/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	09/23/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	06/04/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
MW-2 †	01/21/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND	ND	ND	ND
	04/05/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 *	NA	NA	NA	NA
	07/12/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 *	NA	NA	NA	NA
	10/20/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 *	NA	NA	NA	NA
	01/22/01	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 *	NA	NA	NA	NA
	05/09/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	09/23/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.6	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	06/04/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.60	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/29/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.91	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/07/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5

Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TAME µg/l	TBA µg/l	EDB µg/l	1,2-DCA µg/l
MW-3	01/21/00	2300 [a]	ND<50	130	220	36	290	41	ND	ND	21	2.8
	04/05/00	19,000 [a]	1000 [d]	3600	1400	580	1900	190	ND	ND	36	150
	07/12/00	16,000 [a]	1200 [d]	3600	1100	590	1100	140	ND	ND	46	180
	10/20/00	12,000 [a]	970 [d]	2300	540	480	690	230	ND	ND	26	220
	01/22/01	1400 [a]	280 [d]	210	26	70	50	21	ND	ND	1.2	28
	05/09/02	7900 [a]	NA	1400	790	420	510	100	ND	ND<50	34	140
	09/23/02	1300 [a]	NA	120	7.0	180	42	65	ND<0.5	ND<10	3.7	80
	06/05/03	6700 [a]	740 [d]	1300	550	340	410	67	ND<5.0	ND<50	21	110
	09/11/03	3700 [a]	630 [d]	690	200	260	190	72	ND<5.0	ND<50	8.3	81
	04/29/04	16,000 [a]	1200 [d,b]	3700	1400	730	1000	130	ND<10	ND<100	16	63
	10/22/04	310 [a]	200 [d]	19	9.2	5.6	7.2	27	ND<0.5	ND<5.0	ND<0.5	5.5
	04/07/05	2300 [a]	290 [d]	540	170	110	160	18	ND<0.5	50	4.6	21
	11/22/05	**3700 [a]**	**350 [d]**	**450**	**140**	**54**	**170**	**23**	**ND<0.5**	**13**	**ND<0.5**	**11**
MW-4	01/21/00	10,000 [a]	750 [d,b]	1600	110	330	1500	48	ND	ND	ND	210
	04/05/00	34,000 [a]	1700 [d]	3400	590	1000	4200	200	ND	ND	ND	170
	07/12/00	29,000 [a]	1900 [d]	3400	190	1200	4400	100	ND	260	ND	210
	10/20/00	19,000 [a]	1100 [d]	1700	95	930	3200	64	ND	190	ND	180
	01/22/01	26,000 [a]	3600 [d,b]	2000	220	1100	3900	38	ND	ND	ND	190
	05/09/02	27,000 [a]	NA	3700	430	1100	4000	41	1.1	27	ND<0.5	20
	09/23/02	14,000 [a,h]	NA	2300	95	770	2400	60	ND<0.5	160	ND<5.0	130
	06/04/03	31,000 [a]	3900 [d]	3600	470	1300	4500	440	11	140	ND<5.0	200

Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TAME µg/l	TBA µg/l	EDB µg/l	1,2-DCA µg/l
MW-4 cont.	09/11/03	26,000 [a]	2600 [d]	2900	160	1400	4200	97	ND<5.0	110	ND<5.0	160
	04/29/04	38,000 [a]	7100 [d,b]	2900	280	2300	7300	620	12	130	ND<10	73
	10/22/04	16,000 [a]	1900 [d]	1600	53	740	2000	62	ND<5.0	80	ND<5.0	110
	04/07/05	27,000 [a]	2900 [d]	4300	160	1400	3600	170	5.3	360	ND<5.0	44
	11/22/05	**12,000 [a]**	**860 [d]**	**3100**	**64**	**640**	**1300**	**71**	**ND<10**	**ND<100**	**ND<10**	**85**
MW-5	05/09/02	420 [a]	NA	5.1	ND<0.5	5.3	22	98	ND	27	ND<1.7	35
	09/23/02	61 [a,h]	NA	1.0	ND<0.5	ND<0.5	ND<0.5	62	ND<0.5	57	ND<2.5	19
	06/05/03	170 [a]	110 [d]	6.6	ND<0.5	5.4	5.8	6.7	ND<0.5	ND<5.0	ND<0.5	0.66
	09/11/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110	ND<2.5	37	ND<2.5	46
	04/29/04	320 [a]	330 [d]	6.2	1.0	2.6	7.3	32	ND<0.5	5.3	ND<0.5	5.1
	10/22/04	ND<50	ND<50	ND<0.5	0.67	ND<0.5	1.1	29	ND<0.5	29	ND<0.5	11
	04/07/05	84 [a]	88 [d]	1.2	ND<0.5	0.89	ND<0.5	30	ND<0.5	9.6	ND<0.5	7.7
	11/22/05	**ND<50**	**ND<50**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**30**	**ND<0.5**	**35**	**ND<0.5**	**13**
MW-6	06/04/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	09/11/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/29/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	10/22/04	ND<50	ND<50	0.74	4.7	1.3	5.1	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/07/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	11/22/05	**ND<50**	**ND<50**	**1.7**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<5.0**	**ND<0.5**	**ND<0.5**

Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TAME µg/l	TBA µg/l	EDB µg/l	1,2-DCA µg/l
MW-7	06/05/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0	ND<0.5	ND<5.0	ND<0.5	1.3
	09/11/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.62	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/29/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<5.0	ND<0.5	0.90
	10/22/04	ND<50	ND<50	ND<0.5	0.60	ND<0.5	0.69	6.6	ND<0.5	17	ND<0.5	ND<0.5
	04/07/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.91	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	11/22/05	**ND<50**	**ND<50**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**0.97**	**ND<0.5**	**ND<5.0**	**ND<0.5**	**ND<0.5**
MW-8	06/04/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.3	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	09/11/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8	ND<0.5	7.0	ND<0.5	ND<0.5
	04/29/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	10/22/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.9	ND<0.5	6.0	ND<0.5	ND<0.5
	04/07/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	11/22/05	**ND<50**	**ND<50**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**3.2**	**ND<0.5**	**8.4**	**ND<0.5**	**ND<0.5**
MW-9	06/05/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.68	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	09/11/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/29/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.93	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	10/22/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/07/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	11/22/05	**ND<50**	**ND<50**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**0.65**	**ND<0.5**	**ND<5.0**	**ND<0.5**	**ND<0.5**

Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers
C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TAME µg/l	TBA µg/l	EDB µg/l	1,2-DCA µg/l
MW-10	06/05/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	09/11/03	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/29/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	10/22/04	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	04/07/05	ND<50	200 g,b	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
	11/22/05	**ND<50**	**ND<50**	**6.2**	**3.6**	**1.6**	**4.6**	**ND<0.5**	**ND<0.5**	**ND<5.0**	**ND<0.5**	**ND<0.5**

TPHg: Total petroleum hydrocarbons as gasoline
TPHd: Total petroleum hydrocarbons as diesel
MTBE: Methyl tert-butyl ether analyzed by EPA Method 8260B unless otherwise noted
EDB: 1,2-Dibromoethane (ethylene dibromide)
1,2-DCA: 1,2-Dichloroethane
TBA: Tert-butanol (tert-butyl alcohol)
µg/l: Micrograms per liter
NA: Not analyzed
ND: Not detected above the reporting limit
a: Unmodified or weakly modified gasoline is significant
b: Diesel range compounds are significant; no recognizable pattern
d: Gasoline range compounds are significant
g: Oil range compounds are significant
h: Lighter than water immiscible sheen is present
*: Samples analyzed for MTBE by Analytical Method SW8020
†: Sampling of MW-1 has been discontinued. MW-2 is usually sampled during seasonally high groundwater levels.

Table 3. Analytical Results - Groundwater Samples from Monitoring Wells: Inorganic Anions and Metals C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Sample ID	Date	Bromide mg/l	Bromate mg/l	Hexachrome µg/l	Molybdenum µg/l	Selenium µg/l	Vanadium µg/l
MW-2	11/22/05	ND<0.1	ND<0.005	0.43	ND<0.5	ND<0.5	ND<0.5
MW-3	11/22/05	0.25	ND<0.005	ND<0.2	5.1	ND<0.5	1.9
MW-4	11/22/05	0.52	ND<0.005	ND<0.2	4.7	ND<0.5	ND<0.5
MW-5	11/22/05	0.35	ND<0.005	ND<0.2	0.72	ND<0.5	ND<0.5

mg/l: Milligram per liter
µg/l: Micrograms per liter
ND: Not detected above the reporting limit

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Table 4. Analytical Results - Groundwater Samples from Water-supply Wells C&R Ranches, 4550 Spring Hill Road, Petaluma, California

Well ID	Sample Date	TPHg µg/l	TPHd µg/l	MTBE µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l
W1	12/10/99 [1]	ND<50	ND<50	ND<1	ND<1	ND<1	ND<1	ND<1
	06/04/03 [2]	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
W2	12/10/99 [1]	ND<50	ND<50	ND<1	ND<1	ND<1	ND<1	ND<1
	06/04/03 [2]	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5

TPHg: Total petroleum hydrocarbons as gasoline
TPHd: Total petroleum hydrocarbons as diesel
MTBE: Methyl tert-butyl ether; analyzed by EPA Method 8020 unless noted otherwise
µg/l: Micrograms per liter
ND: Not detected above the reporting limit
1: Samples also analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX), MTBE and other gasoline oxygenates and lead scavengers 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCA) by Analytical Method SW8260B; results were all ND.
2: Samples also analyzed for MTBE and other gasoline oxygenates and lead scavengers EDB and 1,2-DCA by Analytical Method SW8260B; results were all ND.

Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH
4550 Spring Hill Road, Petaluma, California

Well ID	Date	Depth to Water (feet)	Dissolved Oxygen (mg/l)	Oxygen Reduction Potential (mV)	Temperature (°F)	pH
MW-1	11/22/05 [1]	7.86	---	---	---	---
MW-2	11/22/05 [1]	10.26	---	---	63.1	6.59
MW-3	11/22/05 [1]	10.46	0.19	-27	66.4	6.92
MW-4	11/22/05 [1]	11.22	0.30	-33	62.9	6.58
MW-5	11/22/05 [1]	10.83	0.23	60	62.9	6.80
MW-6	11/22/05 [1]	10.79	1.01	48	66.2	6.37
MW-7	11/22/05 [1]	9.96	0.77	80	65.5	6.71
MW-8	11/22/05 [1]	9.36	0.92	119	64.3	6.96
MW-9	11/22/05 [1]	10.56	0.30	9	64.1	6.98
MW-10	11/22/05 [1]	11.53	0.91	5	62.2	6.84

mg/l: Milligrams per liter
mV: Millivolts
°F: Degrees Fahrenheit
---: Not measured
1: Baseline measurements collected prior to system startup

Unless noted otherwise, groundwater parameters were measured without purging.

0108\table 5 DO

Appendix A

Groundwater Field Logs

DAILY FIELD RECORD

Page 1 of _____

Project and Task Number: 0108	Date: 11/22/05
Project Name: C+R RANCHES	Field Activity: GRUND WATER MONITOR
Location: 4550 SPRING HILL RD	Weather:
Time of OVM Calibration:	

PERSONNEL

Name	Company	Time In	Time Out
C. Hute			

DRUM ID	DESCRIPTION OF CONTENTS AND QUANTITY	LOCATION
1	Full water	

TIME	DESCRIPTION OF WORK PERFORMED
	ORDER 6,10,9,7,8,5,3,4
	mw-1 7.86
	mw-2 10.26
	mw-3 10.46
	mw-4
	mw-5 10.83
	mw-6 10.79
	mw-7 9.96 max
	mw-8 9.36
	mw-9 10.56
	mw-10 11.53

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FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-2
Global ID: T0609744339	Well depth from TOC: 25
Project location: C+R RANCHES 4450 Spring Hill Rd.	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: ND
Time:	Water level from TOC: 10.26
Recorded by: C. Hute	Screened interval:
Purge time (duration):	Well elevation (TOC):

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: NO

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 14.74	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.51	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 7.5	Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
							Low turb Low odor No Sheen
	6.69	409.5	64.3			1/ 2.5	
	6.35	466.4	63.8			2/ 5.0	
	6.39	470.5	63.1			3/ 7.5	
						/	

Notes: Sa

Water level after purging below TOC:	80% of original water level below TOC: yes
Water level before sampling below TOC: 10.31	
Appearance of sample:	Time: 5:00

☐ Bailer:	Type:	GPM:	☒ Pump: ES-40	Type: Submersible	GPM: 1-2
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other: ☐

LABORATORY: ☒ McCampbell Analytical ☐ Other:

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FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-3
Global ID: T0609744339	Well depth from TOC: 25'
Project location: 4550 SPRING HILL RD	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: ND
Time:	Water level from TOC: 10.46
Recorded by: C. Hute	Screened interval: 10-25'
Purge time (duration):	Well elevation (TOC): 118.98'

WEATHER

Wind: 0 – 5 MPH	Precip. in last 5 days: NO

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 14.54	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.47	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 7.5	Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC (x1000)	Temp °F	Case Volumes/ Gallons	orp	DO	Appearance Low Turb Low Odor no Sheen
	6.71	667.3	66.6	1 / 2.5	-9	.33	
	6.76	676.2	66.6	2 / 5.0	-25	.25	
	6.92	699.5	66.4	3 / 7.5	-27	.19	
				/			

Notes:

Water level after purging below TOC: 80% of original water level below TOC: yes

Water level before sampling below TOC: 10.49

Appearance of sample: Time: 4:30

☐ Bailer:	Type:	GPM:	☒ Pump: ES 40	Type: Submersible	GPM: 1 2
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other:

LABORATORY: ☒ McCampbell Analytical ☐ Other:

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ENVIRONMENTAL CONSULTANTS

FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-4
Global ID: T0609744339	Well depth from TOC: 25
Project location: 4550 SPRING HILL RD	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: NO
Time:	Water level from TOC: 11.22
Recorded by: C. Hute	Screened interval: 10.25'
Purge time (duration):	Well elevation (TOC): 113.91'

WEATHER

Wind: 0 – 5 MPH	Precip. in last 5 days: NO

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 13.78	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.34	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 6.9	Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC (x1000)	Temp °F	Case Volumes/ Gallons	orp	DO	Appearance
	6.73	787.5	63.7	1 / 2.3	37	.78	low turb low odor no sheen
	6.65	719.9	63.1	2 / 4.6	-24	.43	
	6.58	920.3	62.9	3 / 6.9	-33	.30	
				/			

Notes:

Water level after purging below TOC: 80% of original water level below TOC: yes

Water level before sampling below TOC: 11.27

Appearance of sample: Time: 4.45

☐ Bailer:	Type:	GPM:	☒ Pump: ES40	Type: Submersible	GPM: (1) 2
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other:

LABORATORY: ☒ McCampbell Analytical ☐ Other:

EDD CLARK & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-5
Global ID: T0609744339	Well depth from TOC: 20
Project location: 4550 SPRING HILL RD	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: ND
Time:	Water level from TOC: 10.83
Recorded by: C. Hute	Screened interval: 5 – 20.5
Purge time (duration):	Well elevation (TOC): 108.04'

WEATHER

Wind: 0 – 5 MPH	Precip. in last 5 days: NO

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 9.17	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.56	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 4.8	Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC uS (x1000)	Temp °F	Case Volumes/ Gallons	orp	DO	Appearance
	6.86	1002	63.8	1 / 1.6	94	.46	Low turb no odor no sheen
	6.88	993.5	63.3	2 / 3.2	82	.28	
	6.80	987.1	62.9	3 / 4.8	60	.23	
				/			

Notes:

Water level after purging below TOC:	80% of original water level below TOC: yes
Water level before sampling below TOC: 10.89	
Appearance of sample:	Time: 4:15

☐ Bailer:	Type:	GPM:	☒ Pump: ES40	Type: Submersible	GPM: 1 (2)
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other:

LABORATORY: ☒ McCampbell Analytical ☐ Other:

EDD CLARK & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-6
Global ID: T0609744339	Well depth from TOC: 20
Project location: 4550 SPRING HILL RD	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: ND
Time:	Water level from TOC: 10.79
Recorded by: C. Hute	Screened interval: 5-20
Purge time (duration):	Well elevation (TOC):

WEATHER

Wind: 0 – 5 MPH	Precip. in last 5 days: NO

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 9.21	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.57	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 4.8	Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC µS (x1000)	Temp °F	Case Volumes/ Gallons	Orp	DO	Appearance Low Turb no odor no sheen
	6.64	1512	66.6	1 / 1.6	49	2.63	
	6.55	1825	66.6	2 / 3.2	47	2.22	
	6.37	1742	66.2	3 / 4.8	48	1.01	
				/			

Notes:

Water level after purging below TOC:	80% of original water level below TOC: YES
Water level before sampling below TOC: 10.82	
Appearance of sample:	Time: 3:00

☐ Bailer:	Type:	GPM:	☒ Pump: ES 40	Type: Submersible	GPM: 1 2
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other:

LABORATORY: ☒ McCampbell Analytical ☐ Other:

EDD CLARK & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-7 Monument well
Global ID: T0609744339	Well depth from TOC: 21.5
Project location: 4550 Spring Hill Rd	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: NO
Time:	Water level from TOC: 9.96
Recorded by: C. Hute	Screened interval: 5-19.5
Purge time (duration):	Well elevation (TOC):

WEATHER

Wind: 0 – 5 MPH	Precip. in last 5 days: NO

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 11.54	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.96	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 6.0	Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC uS (x1000)	Temp °F	Case Volumes/ Gallons	orp	DO	Appearance Low Turb no odor no Sheen
	6.72	925.2	66.0	1 / 2.0	77	2.29	
	6.80	1021	65.6	2 / 4.0	76	.85	
	6.71	1011	65.5	3 / 6.0	80	.77	
				/			

Notes:

Water level after purging below TOC:	80% of original water level below TOC: yes
Water level before sampling below TOC: 10.01	
Appearance of sample:	Time: 3:45

☐ Bailer:	Type:	GPM:	☒ Pump: ESP40	Type: Submersible	GPM: 1 2
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other:

LABORATORY: ☒ McCampbell Analytical ☐ Other:

EDD CLARK & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-8
Global ID: T0609744339	Well depth from TOC: 19.5
Project location: 4550 SPRING HILL RD	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: NO
Time:	Water level from TOC: 9.36
Recorded by: C. Hute	Screened interval: 5-20
Purge time (duration):	Well elevation (TOC):

WEATHER

Wind: 0 – 5 MPH	Precip. in last 5 days: NO

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 10.14	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.72	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 4	Well volumes removed: 2+

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC uS (x1000)	Temp °F	Case Volumes/ Gallons	orp	DO	Appearance
	7.16	1084	64.7	1 / 1.7	126	1.01	Low turb no odor no Sheen
	6.96	1081	64.3	2 / 3.4	119	.92	
				3 / 5.1			
				/			

Notes: Ran Dry at 4 Gal
Rusty Red color for first 3 Gal

Water level after purging below TOC: DRY	80% of original water level below TOC: yes
Water level before sampling below TOC:	
Appearance of sample:	Time: 4:00

☐ Bailer:	Type:	GPM:	☒ Pump: ESP 40	Type: Submersible	GPM: (1) 2
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other:

LABORATORY: ☒ McCampbell Analytical ☐ Other:

EDD CLARK & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-9
Global ID: T0609744339	Well depth from TOC: 20
Project location: 4550 SPRING HILL RD	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: NO
Time:	Water level from TOC: 10.56
Recorded by: C. Hute	Screened interval: 5-20'
Purge time (duration):	Well elevation (TOC):

WEATHER

Wind: 0 - 5 MPH	Precip. in last 5 days: NO

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 9.44	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.60	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 4.8	Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC (x1000)	Temp °F	Case Volumes/ Gallons	ORP	DO	Appearance
	6.87	1342	64.5	1 / 1.6	37	1.09	Low Turb no odor no Sheen
	6.90	1367	64.5	2 / 3.2	36	.53	
	6.98	1106	64.1	3 / 4.8	9	.30	
				/			

Notes:

Water level after purging below TOC:	80% of original water level below TOC: YES
Water level before sampling below TOC: 10.61	
Appearance of sample:	Time: 3:30

☐ Bailer:	Type:	GPM:	☒ Pump: ES40	Type: Submersible	GPM: 1 2
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other:

LABORATORY: ☒ McCampbell Analytical ☐ Other:

EDD CLARK & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

FIELD LOG

☒ GROUNDWATER	☐ SURFACE WATER	☐ DOMESTIC WATER	☐ IRRIGATION WATER	☐ WELL DEVELOPMENT

Project No: 0108	Field point name: MW-10
Global ID: T0609744339	Well depth from TOC: 18.5
Project location: 4550 SPRING HILL RD	Well diameter: ☒ 2" ☐ 4 " ☐ 6" ☐ Other:
Date: 11/22/05	Product level from TOC: NO
Time:	Water level from TOC: 11.53
Recorded by: C. Hute	Screened interval: 5-18.5
Purge time (duration):	Well elevation (TOC):

WEATHER

Wind: 0 - 5 MPH	Precip. in last 5 days:

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

☒ 2" well = 0.17 gal/ft 6.77	☐ 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.18	
☐ 4" well = 0.66 gal/ft	☐ " well = gal/ft	Total gallons removed: 2	Well volumes removed: 1+

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC (x1000)	Temp °F	Case Volumes/ Gallons	orp	DO	Appearance
	6.84	914.1	62.2	1 / 1.2	5	9.1	Low Turb no odor no sheen
				2 / 2.4			
				3 / 3.6			
				/			

Notes: Ran dry at 2 Gal

Water level after purging below TOC: DRY	80% of original water level below TOC: yes
Water level before sampling below TOC:	
Appearance of sample:	Time:

☐ Bailer:	Type:	GPM:	☒ Pump: ESP	Type: Submersible	GPM: (1) 2
☐ Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	☒ TPHg	☒ TPHd	☐ TPH	☒ BTEX	☒ 7 oxygenates	☒ Lead scavengers	☐ VOCs	☐ Nitrates
EPA Method:								

Other:

LABORATORY: ☒ McCampbell Analytical ☐ Other:

Appendix B

Analytical Laboratory Report

RECEIVED
DEC 0 8 2005
BY

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
		Date Received: 11/23/05
	Client Contact: Cole Hute	Date Reported: 12/02/05
	Client P.O.:	Date Completed: 12/02/05

WorkOrder: 0511457

December 02, 2005

Dear Cole:

Enclosed are:

1). the results of 9 analyzed samples from your **#0108; C+R Ranches project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Edd Clark & Associates, Inc.	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
		Date Received: 11/23/05
320 Professional Center Ste. 215	Client Contact: Cole Hute	Date Extracted: 11/29/05-11/30/05
Rohnert Park, CA 94928	Client P.O.:	Date Analyzed: 11/29/05-11/30/05

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0511457

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-3	W	3700,a	---	450	140	54	170	2	97
002A	MW-4	W	12,000,a	---	3100	64	640	1300	33	108
003A	MW-5	W	ND	---	ND	ND	ND	ND	1	105
004A	MW-6	W	ND	---	1.7	ND	ND	ND	1	106
005A	MW-7	W	ND	---	ND	ND	ND	ND	1	102
006A	MW-8	W	ND	---	ND	ND	ND	ND	1	105
007A	MW-9	W	ND	---	ND	ND	ND	ND	1	105
008A	MW-10	W	ND	---	6.2	3.6	1.6	4.6	1	102

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Edd Clark & Associates, Inc.	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
		Date Received: 11/23/05
320 Professional Center Ste. 215	Client Contact: Cole Hute	Date Extracted: 11/23/05
Rohnert Park, CA 94928	Client P.O.:	Date Analyzed: 11/24/05

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0511457

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0511457-001B	MW-3	W	350,d	1	100
0511457-002B	MW-4	W	860,d	1	98
0511457-003B	MW-5	W	ND	1	99
0511457-004B	MW-6	W	ND	1	101
0511457-005B	MW-7	W	ND	1	102
0511457-006B	MW-8	W	ND	1	102
0511457-007B	MW-9	W	ND	1	104
0511457-008B	MW-10	W	ND	1	100

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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Website: www.mccampbell.com E-mail: main@mccampbell.com

Edd Clark & Associates, Inc.	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
320 Professional Center Ste. 215		Date Received: 11/23/05
Rohnert Park, CA 94928	Client Contact: Cole Hute	Date Extracted: 11/24/05-11/29/05
	Client P.O.:	Date Analyzed: 11/24/05-11/29/05

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0511457

Lab ID	0511457-001C	0511457-002C	0511457-003C	0511457-004C	Reporting Limit for DF =1	
Client ID	MW-3	MW-4	MW-5	MW-6		
Matrix	W	W	W	W		
DF	1	20	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND<10	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	13	ND<100	35	ND	NA	5.0
1,2-Dibromoethane (EDB)	ND	ND<10	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	11	85	13	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND<10	ND	ND	NA	0.5
Ethanol	ND	ND<1000	ND	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND<10	ND	ND	NA	0.5
Methanol	ND	ND<10,000	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	23	71	30	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	101	101	100	101		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
		Date Received: 11/23/05
	Client Contact: Cole Hute	Date Extracted: 11/24/05-11/29/05
	Client P.O.:	Date Analyzed: 11/24/05-11/29/05

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0511457

Lab ID	0511457-005C	0511457-006C	0511457-007C	0511457-008C	Reporting Limit for DF =1	
Client ID	MW-7	MW-8	MW-9	MW-10		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	8.4	ND	ND	NA	5.0
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND	NA	0.5
Ethanol	ND	ND	ND	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND	NA	0.5
Methanol	ND	ND	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	0.97	3.2	0.65	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	102	100	103	102		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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Angela Rydelius, Lab Manager

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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
		Date Received: 11/23/05
	Client Contact: Cole Hute	Date Extracted: 11/23/05
	Client P.O.:	Date Analyzed: 12/01/05

Inorganic Anions by IC*

Analytical methods: E300.1

Work Order: 0511457

Lab ID	Client ID	Matrix	Bromide	DF	% SS
0511457-001D	MW-3	W	0.25	1	95
0511457-002D	MW-4	W	0.52	1	98
0511457-003D	MW-5	W	0.35	1	92
0511457-009A	MW-2	W	ND	1	92

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.1	mg/L
	S	NA	NA

* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted/raised due to high inorganic content/matrix interference; k) sample arrived with head space.

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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
		Date Received: 11/23/05
	Client Contact: Cole Hute	Date Extracted: 11/23/05
	Client P.O.:	Date Analyzed: 12/01/05-12/02/05

Inorganic Anions by IC*

Analytical methods: E300.1 Work Order: 0511457

Lab ID	Client ID	Matrix	Bromate	DF	% SS
0511457-001D	MW-3	W	ND	1	N/A
0511457-002D	MW-4	W	ND	1	N/A
0511457-003D	MW-5	W	ND	1	N/A
0511457-009A	MW-2	W	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.005	mg/L
	S	NA	NA

* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high inorganic content; k) sample arrived with head space.

DHS Certification No. 1644

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Edd Clark & Associates, Inc.	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
		Date Received: 11/23/05
320 Professional Center Ste. 215	Client Contact: Cole Hute	Date Extracted: 11/23/05
Rohnert Park, CA 94928	Client P.O.:	Date Analyzed: 11/23/05

Hexachrome by IC*

Analytical Method: E218.6

Work Order: 0511457

Lab ID	Client ID	Matrix	Hexachrome	DF
0511457-001D	MW-3	W	ND	1
0511457-002D	MW-4	W	ND	1
0511457-003D	MW-5	W	ND	1
0511457-009A	MW-2	W	0.43	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L
	S	NA

* water samples are reported in µg/L.

N/A means surrogate not applicable to this analysis; # surrogate diluted out of range or surrogate coelutes with another peak.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to matrix interference; p) see attached narrative.

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Edd Clark & Associates, Inc.	Client Project ID: #0108; C+R Ranches	Date Sampled: 11/22/05
		Date Received: 11/23/05
320 Professional Center Ste. 215	Client Contact: Cole Hute	Date Extracted: 11/23/05
Rohnert Park, CA 94928	Client P.O.:	Date Analyzed: 11/29/05

Metals*

Extraction method: E200.8 Analytical methods: E200.8 Work Order: 0511457

Lab ID	Client ID	Matrix	Extraction	Molybdenum	Selenium	Vanadium	DF	% SS
001E	MW-3	W	DISS.	5.1	ND	1.9	1	N/A
002E	MW-4	W	DISS.	4.7	ND	ND	1	N/A
003E	MW-5	W	DISS.	0.72	ND	ND	1	N/A
009B	MW-2	W	DISS.	ND	ND	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	DISS.	0.5	0.5	0.5	µg/L
	S	TTLC	NA	NA	NA	NA

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery; n) results are reported on a dry weight basis; p) see attached narrative.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water | QC Matrix: Water | WorkOrder: 0511457

EPA Method: SW8021B/8015Cm | **Extraction: SW5030B** | **BatchID: 19161** | **Spiked Sample ID: 0511451-007A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex)£	ND	60	101	101	0	104	106	2.11	70 - 130	70 - 130
MTBE	ND	10	92.2	92.1	0.166	92.2	91.3	1.00	70 - 130	70 - 130
Benzene	ND	10	93.7	93.1	0.729	97.3	100	2.76	70 - 130	70 - 130
Toluene	ND	10	100	98.1	2.37	105	105	0	70 - 130	70 - 130
Ethylbenzene	ND	10	106	106	0	111	113	1.67	70 - 130	70 - 130
Xylenes	ND	30	110	110	0	113	117	2.90	70 - 130	70 - 130
%SS:	104	10	100	99	0.900	101	103	1.38	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19161 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511457-001A	11/22/05 4:30 PM	11/29/05	11/29/05 11:40 AM	0511457-002A	11/22/05 4:45 PM	11/30/05	11/30/05 8:25 PM
0511457-003A	11/22/05 4:15 PM	11/29/05	11/29/05 9:17 AM	0511457-004A	11/22/05 3:00 PM	11/29/05	11/29/05 9:49 AM
0511457-005A	11/22/05 3:45 PM	11/29/05	11/29/05 10:22 AM	0511457-006A	11/22/05 4:00 PM	11/29/05	11/29/05 10:54 AM
0511457-007A	11/22/05 3:30 PM	11/29/05	11/29/05 11:27 AM	0511457-008A	11/22/05 3:15 PM	11/29/05	11/29/05 12:00 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

SLA QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water | QC Matrix: Water | WorkOrder: 0511457

EPA Method: SW8015C	Extraction: SW3510C				BatchID: 19167			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	95.8	95.8	0	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	101	101	0	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19167 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511457-001B	11/22/05 4:30 PM	11/23/05	11/24/05 11:13 AM	0511457-002B	11/22/05 4:45 PM	11/23/05	11/24/05 10:03 AM
0511457-003B	11/22/05 4:15 PM	11/23/05	11/24/05 8:54 AM	0511457-004B	11/22/05 3:00 PM	11/23/05	11/24/05 7:46 AM
0511457-005B	11/22/05 3:45 PM	11/23/05	11/24/05 1:33 PM	0511457-006B	11/22/05 4:00 PM	11/23/05	11/24/05 6:37 AM
0511457-007B	11/22/05 3:30 PM	11/23/05	11/24/05 5:29 AM	0511457-008B	11/22/05 3:15 PM	11/23/05	11/24/05 12:23 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

SH QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water | QC Matrix: Water | WorkOrder: 0511457

EPA Method: SW8260B | **Extraction: SW5030B** | **BatchID: 19152** | **Spiked Sample ID: 0511451-007B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	106	110	3.47	116	119	2.75	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	90.9	100	9.89	101	95.1	6.16	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	10	100	105	5.07	111	105	4.86	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	106	111	4.60	114	116	1.46	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	102	104	1.67	112	112	0	70 - 130	70 - 130
Ethanol	ND	500	91.6	98.7	7.48	99.1	92.4	6.95	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	97.2	96.9	0.268	106	107	1.02	70 - 130	70 - 130
Methanol	ND	2500	100	99.8	0.660	101	98.9	1.82	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	94.5	98.2	3.85	104	106	2.33	70 - 130	70 - 130
%SS1:	105	10	101	101	0	99	101	1.96	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19152 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511457-001C	11/22/05 4:30 PM	11/24/05	11/24/05 12:11 AM	0511457-002C	11/22/05 4:45 PM	11/29/05	11/29/05 8:51 AM
0511457-003C	11/22/05 4:15 PM	11/24/05	11/24/05 1:36 AM	0511457-004C	11/22/05 3:00 PM	11/24/05	11/24/05 2:19 AM
0511457-005C	11/22/05 3:45 PM	11/24/05	11/24/05 3:02 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water | QC Matrix: Water | WorkOrder: 0511457

EPA Method: SW8260B | **Extraction: SW5030B** | **BatchID: 19168** | **Spiked Sample ID: 0511464-001B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	111	107	3.62	108	106	1.80	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	90.4	89.8	0.653	92.3	90.8	1.70	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	10	114	110	3.57	113	109	4.45	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	104	101	3.64	101	97.9	2.62	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	97	95.5	1.57	95	93.3	1.80	70 - 130	70 - 130
Ethanol	ND	500	98.2	101	2.37	100	94.4	6.17	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	96.9	92.8	4.39	95.7	92.3	3.57	70 - 130	70 - 130
Methanol	ND	2500	99	98.3	0.748	99.4	99.2	0.175	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	98.8	94.8	4.11	97.2	96.4	0.796	70 - 130	70 - 130
%SS1:	101	10	100	97	2.66	98	98	0	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19168 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511457-006C	11/22/05 4:00 PM	11/24/05	11/24/05 3:45 AM	0511457-007C	11/22/05 3:30 PM	11/24/05	11/24/05 4:28 AM
0511457-008C	11/22/05 3:15 PM	11/29/05	11/29/05 9:34 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

QA/QC Officer

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QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water | QC Matrix: Water | WorkOrder: 0511457

EPA Method: E300.1	Extraction: E300.1				BatchID: 19155			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Bromide	N/A	1	N/A	N/A	N/A	100	99.3	0.966	N/A	85 - 115
%SS:	N/A	0.10	N/A	N/A	N/A	90	90	0	N/A	90 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19155 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511457-001D	11/22/05 4:30 PM	11/23/05	12/01/05 1:45 PM	0511457-002D	11/22/05 4:45 PM	11/23/05	12/01/05 2:14 PM
0511457-003D	11/22/05 4:15 PM	11/23/05	12/01/05 2:43 PM	0511457-009A	11/22/05 5:00 PM	11/23/05	12/01/05 3:12 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

QA/QC Officer

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QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0511457

EPA Method: E300.1	Extraction: E300.1	BatchID: 19084	Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Bromate	N/A	0.040	N/A	N/A	N/A	110	104	5.23	N/A	90 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19084 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511457-001D	11/22/05 4:30 PM	11/23/05	12/01/05 7:18 AM	0511457-002D	11/22/05 4:45 PM	11/23/05	12/02/05 3:07 PM
0511457-003D	11/22/05 4:15 PM	11/23/05	12/02/05 3:47 PM	0511457-009A	11/22/05 5:00 PM	11/23/05	12/01/05 10:36 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

SH QA/QC Officer

DHS Certification No. 1644

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QC SUMMARY REPORT FOR E218.6

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0511457

EPA Method: E218.6	Extraction: E218.6			BatchID: 19148			Spiked Sample ID: 0511417-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Hexachrome	ND	25	104	105	1.19	104	104	0	90 - 110	90 - 110

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19148 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511457-001D	11/22/05 4:30 PM	11/23/05	11/23/05 6:31 PM	0511457-002D	11/22/05 4:45 PM	11/23/05	11/23/05 6:49 PM
0511457-003D	11/22/05 4:15 PM	11/23/05	11/23/05 7:07 PM	0511457-009A	11/22/05 5:00 PM	11/23/05	11/23/05 7:26 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

QA/QC Officer

DHS Certification No. 1644

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0511457

EPA Method: E200.8 **Extraction: E200.8** **BatchID: 19154** **Spiked Sample ID: 0511480-001B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Molybdenum	ND	10	100	106	5.25	102	96.3	6.07	75 - 125	85 - 115
Selenium	ND	10	103	109	6.24	104	99.8	3.70	75 - 125	85 - 115
Vanadium	ND	10	101	110	8.89	104	101	2.54	75 - 125	85 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19154 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511457-001E	11/22/05 4:30 PM	11/23/05	11/29/05 3:53 AM	0511457-002E	11/22/05 4:45 PM	11/23/05	11/29/05 4:01 AM
0511457-003E	11/22/05 4:15 PM	11/23/05	11/29/05 4:09 AM	0511457-009B	11/22/05 5:00 PM	11/23/05	11/29/05 4:18 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

SH QA/QC Officer

DHS Certification No. 1644

Edd Clark & Associates, Inc.
Environmental Consultants

ECAR 0511457

Chain of Custody Report

P.O. Box 3039, Rohnert Park, CA 94927
Tel: (707) 792-9500 (800) 474-1448 Fax: (707) 792-9504

RECEIVED
DEC 14 2005

E-mail in EDF for Upload to Geotracker: Yes ☒ No ☐ Initials CS

Samplers Signature: C. Hutt

EC&A job # 0108

Global I.D. # T06097 44339

Facility Name & Location: C+R RANCHES 4550 SPRINGHILL RD PETALUMA CA

Field Point Name	Date	Time	Sample ID (depth)	Sample Type	Media	# of Items	TPH-G BTEX	TPH-D SILICA GEL CLEAN UP	7 OXYGENATES Pb SCAVENGER 8260	BROMIDE BROMATE	VANADIUM SELENIUM MOLYBDENUM DISSOLVED	HEXAVALENT CHROMIUM DISSOLVED	Remarks
MW-3	11/22	4:30		discrete	W	3/3	X	X	X	X	X	X	
MW-4		4:45				3/3	X	X	X	X	X	X	
MW-5		4:15				3/3	X	X	X	X	X	X	
MW-6		3:00				3/2	X	X	X				
MW-7		3:45				3/2	X	X	X				
MW-8		4:00				3/2	X	X	X				
(7) MW-9		3:30				3/2	X	X	X				
MW-10		3:15				3/2	X	X	X				
MW-2		5:00				2				X	X	X	

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB
VOAS | O&G | METALS | OTHER

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
Cole Hutt	11/23	1620			11/23	2000	Mike Vall
Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0511457 **ClientID: ECAR** **EDF: YES**

Report to:
Cole Hute
Edd Clark & Associates, Inc.
320 Professional Center Ste. 215
Rohnert Park, CA 94928
TEL: (707) 792-9500
FAX: (707) 792-9504
ProjectNo: #0108; C+R Ranches
PO:

Bill to:
Accounts Payable
Edd Clark & Associates, Inc.
320 Professional Center Ste.215
Rohnert Park, CA 94928

Requested TAT: 5 days
Date Received: 11/23/2005
Date Printed: 12/12/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0511457-001	MW-3	Water	11/22/05 4:30:00	☐	D	D	D	C	A	E	E	A	B			
0511457-002	MW-4	Water	11/22/05 4:45:00	☐	D	D	D	C	A	E	E		B			
0511457-003	MW-5	Water	11/22/05 4:15:00	☐	D	D	D	C	A	E	E		B			
0511457-004	MW-6	Water	11/22/05 3:00:00	☐				C	A				B			
0511457-005	MW-7	Water	11/22/05 3:45:00	☐				C	A				B			
0511457-006	MW-8	Water	11/22/05 4:00:00	☐				C	A				B			
0511457-007	MW-9	Water	11/22/05 3:30:00	☐				C	A				B			
0511457-008	MW-10	Water	11/22/05 3:15:00	☐				C	A				B			
0511457-009	MW-2	Water	11/22/05 5:00:00	☐	A	A	A			B	B					

Test Legend:

1	218_6_W	2	300_1_W	3	300_1SPE_W	4	9-OXYS_W	5	G-MBTEX_W
6	METALSMS_DISS	7	PRDISSOLVED	8	PREDF REPORT	9	TPH(D)WSG_W	10	
11		12							

Prepared by: Melissa Valles

Comments: GI# T0609744339

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.